CLAIMS

1.   1. A detector comprising:

2.   an amplifier, connected between the power supply and ground, including a current

3. detector generating a first detected signal, having an amplifier output;

4.   voltage detector, interposing the amplifier output and ground, generating a second

5. detected signal;

6.   a matching circuit, connected to the amplifier output;

7.   a load, interposing the matching circuit and ground; and

8.   an analyzer, receiving the first and second detected signals, generating an

9. analyzer output that reflects a power parameter.

1.   2. A detector, as defined in claim 1, further comprising a gain control receiving

2. the analyzer output, electrically connected to the amplifier.

1.   3. A detector, as defined in claim 2, the analyzer comprising:

2.   a multiplication node, receiving one of the first and second detected signals,

3. generating a scaled signal;

4.   an arithmetic node, receiving the scaled signal and the other of the first and

5. second detected signals, generating the output that reflects the power parameter.

1.   4. A detector, as defined in claim 3, wherein the power parameter is total power.

1.   5. A detector, as defined in claim 3, wherein the power parameter is the

2. amplitude of total power.

1.   6. A detector, as defined in claim 3, the analyzer comprising a multiplication

2. node, receiving the first and second detected signals, generating the output that reflects

3. the power parameter.

1.   7. A detector comprising:

2 an amplifier, connected between the power supply and ground, having an
3 amplifier output;

4 a first voltage detector, interposing the amplifier output and ground, generating a
5 first detected signal;

6 a first passive network, having an input receiving the amplifier output, having a
7 first output;

8 a second passive network, having an input receiving the first output, having a
9 second output;

10 a load interposing the second output and ground;

11 a second voltage detector, receiving the first output, generating a second detected
12 signal; and

13 an analyzer, receiving the first and second detected signals, generating an
14 analyzer output that reflects a power parameter.

1 8. A detector, as defined in claim 7, further comprising a gain controller
2 receiving the analyzer output, electrically connected to an input of the amplifier.

1 9. A detector, as defined in claim 8, the analyzer comprising:
2 a multiplication node, receiving one of the first and second detected signals,
3 generating a scaled signal;
4 an arithmetic node, receiving the scaled signal and the other of the first and
5 second detected signals, generating the output that reflects the power parameter.

1 10. A detector, as defined in claim 9, wherein the power parameter is total power.

1 11. A detector, as defined in claim 9, wherein the power parameter is the
2 amplitude of total power.

1 12. A detector, as defined in claim 9, the analyzer comprising a multiplication
2 node, receiving the first and second detected signals, generating the output that reflects
3 the power parameter.

1   13. A detector comprising:

2   a saturated amplifier, connected between the power supply and ground, having an

3   amplifier output;

4   a current detector, interposing the power supply and amplifier, generating a first

5   detected signal;

6   a voltage detector, interposing the power supply and ground, generating a second

7   detected signal;

8   a matching network, having an input receiving the amplifier output, having an

9   output;

10   a load interposing the matching network output and ground; and

11   an analyzer, receiving the first and second detected signals, generating an

12   analyzer output that reflects a power parameter.

1   14. A detector, as defined in claim 13, further comprising a gain controller

2   receiving the analyzer output, electrically connected to power supply.

1   15. A detector, as defined in claim 14, the analyzer comprising:

2   a multiplication node, receiving one of the first and second detected signals,

3   generating a scaled signal;

4   an arithmetic node, receiving the scaled signal and the other of the first and

5   second detected signals, generating the output that reflects the power parameter.

1   16. A detector, as defined in claim 15, wherein the power parameter is total

2   power.

1   17. A detector, as defined in claim 15, wherein the power parameter is the

2   amplitude of total power.

1   18. A detector, as defined in claim 15, the analyzer comprising a multiplication

2   node, receiving the first and second detected signals, generating the output that reflects

3   the power parameter.

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